Experiments Summary-BRAHMS



- Au/Au run successful, P/P moderately successful
- More Au/Au, Beta*=1, Background rates
- Communications

Experiments Summary-PHENIX

- Decent data set for Au/Au
 - Luminosity Expectations too high
- Beam Halo problem
 - Need scraping
- Communications with CAD and other Exp.
 - Criteria for production running

Experiment Summary-PHOBOS



- Abort Kicker concerns
- Need Variety:
 - Energy Scans, Lighter A, Au/d and d/Au
- Magnet
 - On A, On B, Off
 - Changing (at least) once a week

Experimental Summary-pp2pp

- Had a great run
- Scraping beam works
- Need better Transport Matrix measurements
- Beta*=100 m
 - At 100 GeV
 - At 250 GeV

Experiment Summary-STAR

- Communication
 - MCR to Experiments
 - Better Scheduling/Strategic Plan



Experiment Summary - Spin

- Communication needs to improve for:
 - Polarization Measurements effects backgrounds
 - Steering/Cogging/Spin-Flipping
 - Spin Patterns changes
- Polarization Diagnostics
 - Source/Booster/AGS/RHIC
- Absolute Polarization Calibration
 - Down Ramp, Pol-Jet target

Experiment Integration

- Experimental Magnets
 - 'under control' of MCR/Sequencer/Ramp?
- Signals to/from experiments
 - Need more direct signals
 - For Background monitoring
- Scheduling will improve

Integration-Controls

- Automation and Expert Systems
- Save/Restore
 - Need RHIC ramp restore
- Alarms
 - Agree on policy: Alarm system can do it
- (more) Linux in MCR

Integration-Injectors

- Logging
 - Need digital data
 - Managers
- Online modeling
- Event Link monitoring

Integration-Logging

- Rewrite for I/O optimization
- Post-Triggered Logging
 - Log data continuous, save when 'event' occurs
- What to log in the ../AGS/ATR?
- New TB disk(s)
 - Keep all data online

Integration-Ramps

- Time as independent variable
- RF Cavities driven from Ramp/WF
 - Archived/Restored with magnet settings
 - Predicted RF Parameters in RampEditor

Integration-Cryo

- Communication Cryo control and MCR
 - Quench Recovery Progress/Status
- Cryo Signals to MCR
 - Cryo Release to go to Park/Injection/Ramp
 - Cryo-Ready signal
 - Cryo Status Screen in MCR

Integration-Quench Tuning

- Inductance Tables can be improved
 - Takes 3 to 4 days of data + analysis
 - SF 1 for up ramp, SF 3 between Park/Injection
- Stopping at intermediate Energy
 - 1 shift to take data + analysis

Integration-RF

- Injection Damping
 - Improve Injection Errors
 - Commission the damper
- Instability Damping
 - Passive Damping, Landau Cavities
 - Bunch Shape damping
 - Coupled-bunch mode damping

Integration-RF Application

- Displays RF parameters along ramp
 - Measure:
 - Bunch Lengths, RF Volt/Phase, ...
 - Synchrotron Frequency
 - Bucket Length, Bunch Area
 - Bunch dP/P, Tune spread

Integration-MCR

- Documentation
 - Daily items in Elog
 - What to log, How to restoring
 - Procedures
- Alarm Management